**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

Claims 1-11. (Canceled)

12. (Currently amended) ~~Method as claimed in claim 11~~ A method for determining the biological effect and/or activity of at least one pharmaceutical composition, comprising the steps of:

(a) obtaining a biological sample A containing DNA, said biological sample A being from at least one of an individual, a tissue, a cell or another biological material containing DNA, wherein said biological sample A was exposed to said at least one pharmaceutical composition, wherein said biological sample A is obtained from biological material of a diseased individual;

(b) obtaining a biological sample B containing DNA, said biological sample B being from at least one of an individual, a tissue, a cell or another biological material containing DNA, wherein said biological sample B was not exposed to said at least one pharmaceutical composition, wherein said biological sample B is obtained from biological material of a diseased individual;

(c) then, analyzing the level of cytosine methylation at chosen sites of the DNA contained in the biological samples A and B, characterized in that the level of at least 100 cytosine

methylation sites is analyzed in parallel;

(d) selecting those of said chosen sites which are differentially methylated between the DNA in biological samples A and B, whereby a knowledge base is generated; and

(e) concluding from said knowledge base a biological effect and/or activity that said at least one pharmaceutical composition has on said biological sample A in step (a) and communicating the conclusion to a computer via an internet or intranet connection.

Claims 13-21. (Canceled)

22. (Currently amended) ~~Method as claimed in claim 21~~ A method for determining the biological effect and/or activity of at least one pharmaceutical composition, comprising the steps of:

(a) obtaining a biological sample A containing DNA, said biological sample A being from at least one of an individual, a tissue, a cell or another biological material containing DNA, wherein said biological sample A was exposed to said at least one pharmaceutical composition, wherein said biological sample A is obtained from biological material of a diseased individual;

(b) obtaining a biological sample B containing DNA, said biological sample B being from at least one of an individual, a tissue, a cell or another biological material containing DNA, wherein said biological sample B was not exposed to said at least one pharmaceutical composition, wherein said biological sample B is obtained from biological material of a diseased

individual;

(c) then, analyzing the level of cytosine methylation at chosen sites of the DNA contained in the biological samples A and B;

(d) selecting those of said chosen sites which are differentially methylated between the DNA in biological samples A and B, whereby a knowledge base is generated, characterized in that at least 100 sites are selected in parallel; and

(e) concluding from said knowledge base a biological effect and/or activity that said at least one pharmaceutical composition has on said biological sample A in step (a) and communicating the conclusion to a computer via an internet or intranet connection.

Claims 23-26. (Canceled)

27. (Previously presented) ~~Method as claimed in claim 1, characterized in that~~ A method for determining the biological effect and/or activity of at least one pharmaceutical composition, comprising the steps of:

(a) obtaining a biological sample A containing DNA, said biological sample A being from at least one of an individual, a tissue, a cell or another biological material containing DNA, wherein said biological sample A was exposed to said at least one pharmaceutical composition, wherein said biological sample A is obtained from biological material of a diseased individual;

(b) obtaining a biological sample B containing DNA, said biological sample B being from

at least one of an individual, a tissue, a cell or another biological material containing DNA, wherein said biological sample B was not exposed to said at least one pharmaceutical composition, wherein said biological sample B is obtained from biological material of a diseased individual;

(c) then, analyzing the level of cytosine methylation at chosen sites of the DNA contained in the biological samples A and B;

(d) selecting those of said chosen sites which are differentially methylated between the DNA in biological samples A and B, whereby a knowledge base is generated;

(e) repeating steps a) to d) ~~are repeated~~; and

(f) concluding from said knowledge base a biological effect and/or activity that said at least one pharmaceutical composition has on said biological sample A in step (a) and communicating the conclusion to a computer via an internet or intranet connection.

Claim 28. (Canceled)

29. (Previously presented) ~~Method as claimed in claim 1, characterized in that~~ A method for determining the biological effect and/or activity of at least one pharmaceutical composition, comprising the steps of:

(a) obtaining a biological sample A containing DNA, said biological sample A being from at least one of an individual, a tissue, a cell or another biological material containing DNA,

wherein said biological sample A was exposed to said at least one pharmaceutical composition, wherein said biological sample A is obtained from biological material of a diseased individual;

(b) obtaining a biological sample B containing DNA, said biological sample B being from at least one of an individual, a tissue, a cell or another biological material containing DNA, wherein said biological sample B was not exposed to said at least one pharmaceutical composition, wherein said biological sample B is obtained from biological material of a diseased individual;

(c) then, analyzing the level of cytosine methylation at chosen sites of the DNA contained in the biological samples A and B;

(d) selecting those of said chosen sites which are differentially methylated between the DNA in biological samples A and B, whereby a knowledge base is generated;

(e) repeating steps c) to d) ~~are repeated~~; and

(f) concluding from said knowledge base a biological effect and/or activity that said at least one pharmaceutical composition has on said biological sample A in step (a) and communicating the conclusion to a computer via an internet or intranet connection.

30. (Previously presented) ~~Method as claimed in claim 1, characterized in that~~ A method for determining the biological effect and/or activity of at least one pharmaceutical composition, comprising the steps of:

(a) obtaining a biological sample A containing DNA, said biological sample A being

from at least one of an individual, a tissue, a cell or another biological material containing DNA, wherein said biological sample A was exposed to said at least one pharmaceutical composition, wherein said biological sample A is obtained from biological material of a diseased individual;

(b) obtaining a biological sample B containing DNA, said biological sample B being from at least one of an individual, a tissue, a cell or another biological material containing DNA, wherein said biological sample B was not exposed to said at least one pharmaceutical composition, wherein said biological sample B is obtained from biological material of a diseased individual;

(c) then, analyzing the level of cytosine methylation at chosen sites of the DNA contained in the biological samples A and B;

(d) selecting those of said chosen sites which are differentially methylated between the DNA in biological samples A and B, whereby a knowledge base is generated; and

(e) concluding from said knowledge base a biological effect and/or activity that said at least one pharmaceutical composition has on said biological sample A in step (a) and communicating the conclusion to a computer via an internet or intranet connection;

(f) wherein said method is repeated at least 5 to 50 times.

Claims 31-44. (Canceled)